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AN

INTRODUCTORY LECTURE

DELIVERED AT THE

COMMENCEMENT OF THE WINTER COURSE

OF

A N A T O M Y,

FOR 1834-5.

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BY J. PANCOAST, M. D.

Lecturer on Anatomy in the Philadelphia Association for Medical Instruction,
and on Anatomy and Surgery at the Philadelphia Anatomical Rooms.

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PUBLISHED BY REQUEST OF THE CLASS.

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PHILADELPHIA:

PRINTED BY W. P. GIBBONS, SIXTH AND CHERRY STREETS.

1835.

Philadelphia, December 15th, 1834.

DEAR SIR—We have been appointed, on behalf of your Medical Class, to request of you the favour of a copy of your Introductory Lecture, delivered at the commencement of the present session, for publication.

In performing this duty, it is unnecessary for us to bestow upon the address any encomiums in order to induce you to comply with our request; the unanimous vote of the Class sufficiently manifests the estimation in which it is held by them, and its publicity will undoubtedly add to the advancement of that science to which you are so ardently devoted.

We are, very respectfully,

Yours, &c.

[Signed]

JAMES L. PEIRCE,
S. S. HAMERSLY,
J. A. PLEASANTS,
C. D. MAXWELL,
H. S. PATTERSON,

Committee.

To J. PANCOAST, M. D.



Philadelphia, December 16th, 1834.

GENTLEMEN—The Lecture, of which you have done me the honour to request a copy for publication, has been somewhat hastily prepared, and rather for the purpose of arraying the science of Anatomy before you in its attractive and useful light, than for that of exhibiting any novel or peculiar opinions of my own. Imperfect, however, as it may be, it became at its delivery, in some measure, the property of the Class. I do not, therefore, feel myself at liberty to refuse the flattering request which they have made through you; especially since they have the partiality to think that it may “add to the advancement of that science” which it is my duty to teach—a duty that the zeal, interest and kind attention universally manifested by the Class, has converted into a source of pleasure.

Be pleased, gentlemen, to accept for yourselves, and the Class, my highest sentiments of respect and esteem,

[Signed]

J. PANCOAST, M. D.

To Messrs. JAMES L. PEIRCE,

S. S. HAMERSLY,

J. A. PLEASANTS,

C. D. MAXWELL,

H. S. PATTERSON,

INTRODUCTORY LECTURE &c.



GENTLEMEN,—The period has again arrived, which brings us together, for the purpose of entering into some preliminary considerations of the structure of the human system.

The study of himself, must of necessity be to man one of the most attractive of the sciences, and you will find it to be as extensive and important as it is interesting.

Viewed in regard to its mechanism alone, the human frame strikes every investigator with amazement and delight; even parts which are subordinate, and mechanical in the functions they exercise, as the organs of voice or locomotion, are formed on so perfect a plan, that they have stood for ages, as inimitable models, which the loftiest and most inventive genius of the mechanician has never been able to rival. Acting as they do, upon principles of such entire perfection, and possessing within themselves, inherent powers of repair, they are capable of outlasting a century of exertion, and of being put into active exercise by the invisible agency of the vital forces.

Deeply interesting and useful as it is now by the world avowed to be, Anatomy, in the early ages, was looked on with dread and abhorrence; when funereal rites and an earthly burial were thought requisite, to enable the shades of the departed to pass speedily over the Stygian stream.

The dissection of animals even, was proscribed; and Democritus, in order to prosecute this pursuit without molestation, was obliged to retire into the obscurity of the forest.

With such difficulties in his path, that physician was endowed with no small degree of moral courage, who first dared to confront the world, and in the face of danger and the darkness of night, to invade with the

eagle eye of philosophy, the minute structure of those organs whose miraculous and mysterious actions constitute life.

Born thus in the lap of danger, and in the midst of secrecy, the origin of anatomy is lost amid the darkness which envelopes antiquity. We have no records upon this subject, but what are very doubtful and uncertain, prior to the period of Aristotle, who cultivated anatomy as a branch of natural science, and is believed from the accuracy of his description, to have dissected the human form. The love of this pursuit was kept alive in Greece by the successors of this great man. But it is the school of Alexandria that may be considered as having been the cradle of anatomy, where she was received and nurtured in the fostering arms of Herophilus and Erasistratus.

But it is unnecessary for me to dwell on the trite history of this subject. I can tell you nothing new, and shall refer you to books. You will there find that anatomy, with all her sister sciences, pursued a migratory course over the civilized world. Her effulgence, extinguished by the triumph of barbarism in one region, burst out again with more than equal brightness in another, like a rivulet, whose flow it is impossible to destroy, while its source continues to supply it. Thus was she received by the followers of Galen when she was stripped of her trophies and almost annihilated by the flames which Omar and his barbarians had raised in Alexandria.

Years rolled on: Another change came over the the fortunes of this science—again dislodged from her shrine by the overthrow of the Roman empire, Anatomy a second time crossed the Mediterranean, and found a refuge among that very people (the Arabians,) who before had driven her into Europe. By this people, whose religious principles were so subversive of anatomical research, the light of anatomical science can be scarcely said to have been nurtured. It was merely kept from being extinguished. The science was yet in its infancy.

The commencement of the 14th century may be looked on as the morning of anatomical science, when its pursuit was legitimized by Frederick the Second of Sicily, and she took her rightful station amid the circle of her sister sciences. From that period to the present, her course has been like that of a mighty stream, increasing in its extent and usefulness, and must only cease to grow when the human mind ceases to exist, or nothing is left for it to discover

The difficulties through which this science has had to struggle in its rise into public esteem, it has only been enabled to surmount by the growing conviction in the minds of all intelligent men, of its indispensable application to the theory and treatment of every medical and surgical disease. Be, gentlemen, convinced of this at the outset of your career—it is the proper initial step to a medical education. Strive to acquire such a fondness for a pursuit, which is to reveal to you so many hidden mysteries and to light you hereafter in the path of practice, that you may find nothing in it to shock or to offend you. I well remember when, like you, I came here a votary at the shrine of medicine, with what mingled feelings of surprise and pleasure, I first saw ably unfolded by your Professor, the perfect and complex machinery by which “we live, and move, and have our being.” The admirable arrangement of the organs, and their perfect adaptation to their uses, determined my attachment to the pursuit, and experience has since confirmed me as to its value in practice.

With his knowledge of the science, the zealous student of medicine will find his attachment to keep more than equal pace. Such, gentlemen, is the experience of those who attempt to teach the science. There is something in the mere art of imparting medical knowledge, to the liberal minds of which medical classes are composed, that prompts the lecturer forward in his own career, if he foster the generous enthusiasm of an ambitious student. He feels like one engaged in the arduous ascent of a mountain, at whose top is the shrine of science and fame, and who, after having learned a portion of the track, and noted the difficulties that obstruct, as well as the beauties that adorn the way, retreads his steps in order to lead up the same toilsome path, those who journey in the same direction. He smooths the way; he has but recently trod the ground; he feels every impediment which obstructs the view or arrests the progress of the new beginner, solicitously points the path, and by aid and counsel cheers him towards the top. Nor is this task profitless to him; for such is the route of the hill of science, that the greater the familiarity we enjoy with the objects that adorn it, the more knowledge we derive, the more pleasure we feel in its ascent. Like the traveller too, he beguiles the way with the description of its beauties to his companions, and it becomes to him, as well as them, as proportionately short, as it is rendered pleasant.

The structure of man is, as you have read, a little world of its own, the microcosm of the ancients, "where system into system runs;" the parts are so interlocked with each other, that it is impossible for the student to understand them, without a frequent examination of them with his own hand. He may, it is true, be able to give answers to questions, but he cannot understand the relative situation of parts, without having frequently dissected and compared them. This is the *only* knowledge of anatomy that is useful,—it is addressed to the senses and approved by the judgment; the other, which he may gain from books, depends upon the memory, and is, as you will find from experience, very evanescent. The surgeon, physician, physiologist or pathologist, cannot be considered to possess a competent knowledge of anatomy, till he sees in his mind every part of the body presented in a field before him, with all its relative distribution of muscles, bones, blood vessels and nerves. This knowledge of the human frame, when acquired, never forsakes him. It becomes like that of the chart upon which we have studied geography in the schools, and which, when we read history, is presented mentally before us, with all its seas and rivers, continents and islands. The human frame becomes to us then, as it were, transparent as a crystal; we place our hands upon a part, and we are able to tell not only the organs which are below it, but their relative position and their depth.

What, gentlemen, do we understand by the science of anatomy? Is it merely a knowledge of the long, drawling description of the bones, of the course and direction of the muscles, blood vessels and nerves, and of the position of the viscera? No: assuredly, this is not all. Yet this is too frequently all that the students of this country acquire. This is the mere verbiage, the rough outlines of the science, the knowledge of which places us only in the vestibule that leads into the penetralia of the temple. This is not the science which is taught by and reflects such lustre on many anatomists of the present day. As it should now be taught, anatomy consists in an account of all the organs of the body, of their relation with each other, of the constitution, function and uses of every part, in short, a *catalogue raisonne*, of the thousand organs of which the human frame is composed.

The science of anatomy is one of great comprehensiveness; it may be subdivided into many parts. *General anatomy* is an immense study, but

one of the most noble, in which the human mind can be engaged. It comprises the study of the structure and arrangement of the whole number of organs, of which every living being is composed. From the time which its pursuit requires, it can only be followed up by the philosopher, or by those who have much leisure and many conveniences at their command. It presents us, when studied in detail, with a most surprising uniformity in the organization of the immense variety of living beings, placed between the extremes of the animal scale, from the most perfect man down to the minutest mite. A uniformity, not in the number of organs among different animals, but in the manner in which they are modified in form diminished in number, and meted out, parting from man as the head and type of all, so as to form the gradual succession of animals below him, till at the zero point of the scale, we find them formed only of cellular tissue, the primitive element of all animal organization.

This study, when pursued only to institute comparisons, between the same class of organs in different kinds of animals, is denominated *Comparative Anatomy*.

When a single species forms the especial object of study, it takes the name of *Special Anatomy*; and it is this, the special anatomy of man, which forms the peculiar object of our attention. The terms *general* and *special* anatomy, it is true, are employed to designate particular *parts* of the study of the system of man; one consisting in a general account of the distribution of the membranes and tissues in the different organs, and the other of the special account of every organ; but the two form one inseparable study and should be taught together.

Human anatomy may be studied in various modes; as an abstract science, or as it is applied to the cure of diseases. The names, the forms, the size and position of different parts of the body may be learned, and the memory burthened with a load of matter which it knows not how to apply to any useful purpose, and must soon forget. This would be a senseless undertaking, like that of one who should with childish wonder take the machinery of a watch to pieces, study the name, the form of all its parts, and abandon it, ignorant of its mode of action. No, gentlemen; few who enjoy facilities for the cultivation of this science would be willing to follow such a course—to stop at its very threshold. Anatomy, thus studied, is a curious, but useless pursuit; it only becomes valuable

and interesting to us, as it is applied to illustrate the operations of the organism, which constitute physiology, or as it becomes serviceable to us, in the practice of medicine, surgery and obstetrics.

Physiology, or the action of the organs in health, is the first grand object for which we study anatomy ; this department of the science constitutes the poetry of medicine, interests all ages and conditions, the learned and the unlearned, the general student as well as the physician, inasmuch as it presents us with the only picture which we can form of life.

When you once become master of physiology, you have before you the chart of life, you see the route by which all its ministering organic sympathies run, how the organs act and react on each other, and how the action of the whole, combines to support the individual. You will then, be able at once to detect the disordered action of the organs ; which constitutes the first stage of disease. When placed hereafter by the bedside of your patients, knowing well the harmonious play of the organs in health, you will be surprised at the clearness with which they will make known to you their sufferings in disease, through the medium of symptoms, a language so eloquent, yet mute, that you can scarcely fail to comprehend it.

Physiology thus, becomes the key of diagnosis. While it points out to you in this way, the organs that are too much or too little excited, it indicates also the course to be pursued in their cure, and thus becomes the finger post of practice. Every practitioner, in the course of time, must necessarily become, what the world calls experienced ; and all may equally comprehend the mode of administering medicines : it is, I believe, excellence in physiological knowledge, enabling him to locate the proteiform symptoms of disease, that chiefly contributes to form the pre-eminently skilful physician. I know gentlemen, there are those who repudiate such a pursuit : but they are skeptics, believe me, because they have never thoroughly studied anatomy and physiology, or have been too indolent to preserve the knowledge they once hastily acquired. Like those who have never journeyed farther than they have been compelled by their narrow sphere of life, they undertake to depreciate a provence, whose beauties and uses they have never felt, and cannot comprehend. Almost all physicians, who have led opinions in medical science, in whatever age they have lived, have ranked high as physiologists after the fashion

of their time; and there is reason to believe, that had their knowledge of anatomy and physiology been equal to that of the present day, they would not have been behind us in their mode of curing diseases. The great Boerhaave, Van Swieten, Sydenham, Cullen, and our own distinguished Rush, laboured under these disadvantages; and it is only surprising that they should have accomplished so much, with so limited a knowledge of the human body. In what is it then, that the present age is believed to have improved upon the doctrines of these great men? Is it in the judicious combination of medicines, or their skillful administration according to the then existing lights of medicine? Certainly not: In that respect they never have been, and could scarcely be surpassed. It is in the advancement of anatomical science, and in a clearer solution of that difficult problem of life, physiology. When this shall have become fully elucidated, and the deranged sympathies in disease can be unerringly traced to the organs which have produced them, medicine may become a perfect science,—but not till then.

This it is not destined for us to see. That it may some day occur, is however, no Utopian idea. There is a part of it for each of you to perform. Anatomy and Physiology, healthy and diseased, are to be consulted as the genii, which will open for you the avenues of success. Appeal not to fancy, to form for you brilliant but chimerical theories of medicine; mazes in which common sense is lost. Call not on Jupiter, but put your shoulders to the wheel, and in the mode of inductive philosophy, endeavour to determine what are the alterations of structure and function in the organ, when the system shows symptoms of disease.

So much has already of late been done, that it would be hazardous for the student to commence his career with the study of the older writers. He should first learn the science as it now is, and then read back along the channel of medical experience, when he will be enabled to extract the gold from the earth in which it is embedded, the pearls from the shells in which they are concealed.

When an organ is placed before you, and you are taught its form, its texture, and its relations with other parts, you are naturally led to investigate its uses; and it is in this way, conjoined with anatomy, that I believe from some experience, physiology may be most advantageously

taught. It will, therefore, form a part of our course, and will serve, I trust, to relieve the dryness of anatomical detail.

To the direct illustration of practical medicine is the next grand application of anatomy, and he who is the most profoundly versed in this science, will be most likely in all intelligent communities to rise to eminence as a practitioner. A man may no doubt be a good anatomist, and yet be no physician, if he has neglected the study of the therapeutic application of medicines, and has not matured his knowledge in the school of experience. But the converse cannot possibly be true. No one can possibly be a good physician, and aid in the advancement of his science, if he has not been well grounded in anatomy. The seat of disease, reason, and the writers of best repute now tell you is in the organs; and if you are not aware of the derangement in the structure and sympathies of organs which it produces, what accurate picture can you form of disease itself. You will see but as through a glass, darkly, your practice will be but a series of tentative efforts, or in blind obedience to the unreasoning dixits of experience. Who would be trusted to repair the deranged action of a steam engine, if he knew not the structure and uses of all its parts?

To surgery, anatomy is the torch, the eye, and the hand. "*Anatomia est chirurgiæ, oculus et manus,*" is the language of the older writers. Operative surgery is a mechanical art, and depends solely in its improvement and success upon the advancement of anatomical science. For instance, the operation for crural hernia, was perpetually followed by the death of the patient, till Richter and Scarpa pointed out the cause in the surgeon's imperfect knowledge of the anatomy of the part. They indicated the relative situation of the cord and epigastric artery to the neck of the hernial sac, and now none but the most ignorant surgeon would endanger them in an operation. This sort of anatomical study has now been applied to every region of the body, and has given to surgery a mathematical accuracy unknown till the present time.

To give an idea of the manner in which anatomy should be taught, in reference to surgery and medicine, we will adduce an example. Our medical skill is especially required for the care of the organs which exist in the interior of the body.

The province of surgery is the exterior and the extremities. Hence it is found convenient and useful, to divide the body into separate regions

for medical and surgical studies. We have the axillary, the clavicular, the cranial, the inguinal regions, etc., for surgery. The hypogastric, the cardiac, the pulmonary, etc., for practical medicine. To study these regions, organ by organ, the course of their vessels and nerves, the number and kind of tissues of which they are composed, and the changes effected in them by disease, is the most profitable study for the practical anatomist.

Thus, in the region of the cranium, you will find the skin remarkable for its almost cartilaginous hardness, for the volume and size of its piliferous bulbs, and by its close adhesion to its subjacent aponeurosis. Its great vascularity, its position over an osseous surface, show why blows upon the cranium produce a greater effusion of blood, and more extensive laceration there, than in other parts of the body. The close adhesion of the skin, and the aponeurosis with each other, explain why there is less infiltration here than in other places. The greater looseness of the skin in the front part of the head, is the reason that fluids are more apt to infiltrate there and collect about the temple and eyelids, a fact well worth recollecting in investigations in legal medicine. The great looseness of the *subaponeurotic* cellular tissue, is the cause, that in all injuries of the head, the skin and aponeurosis are lacerated together, leaving the bone exposed. The extreme vascularity of the skin covering the head reveals to us the secret of the surprising rapidity with which even tattered fragments of the scalp will reunite; and why, that skin taken from the forehead, in the talliacotian operation, unites to the nose with more certainty than that taken from any other portion of the body. The cellular tissue, connecting the aponeurosis and the bone is long and loose; that between the aponeurosis and the skin is short and dense; and it is this which makes erysipelas of the scalp, a severer disease than the same affection in other parts of the body; the inflammation extends quickly into the deep seated, loose cellular tissue, where the fluids can accumulate, and the swelling take place more readily, extending in some cases to the bone, and even to the brain. It demands here prompter measures in its treatment, and earlier incisions in severe cases, on the part of the surgeon, to relieve the tension and compression within, and to prevent the occurrence of gangrene.

From a careful study of the scalp alone, we would in all ordinary cases, in consequence of the almost tendinous hardness of the subcutaneous cel-

lular tissue which so long resists ulceration, be led to employ compression against the bone, rather than ligatures, to arrest the flow of blood, and to resort to adhesive straps instead of sutures in the approximation of parts, on account of the vast number of nerves which are distributed over the cranium.

From the superficial position of the bones we perceive their liability to fracture, especially in old people, in consequence of the thinness and fragility of their tables in them, the great dimensions of the diploic cellular tissue, as well as the closure of the sutures. The reverse is found to be the case with children, where the greater or less flexibility of the bones, the absence of the diploe, and the existence of the sutures, enables them to suffer a severe fall upon the head, and even a depression of the bone, and in some cases a laceration of the brain, without the occurrence of fracture. From the gelatinous softness of the brain in children, we are also led to perceive, that it would have been more liable to injury, had the bones been rigid and unyielding, by the force with which it would have been dashed in falls, against the opposite walls of the cranium.

This sketch, brief as it is, will serve, I trust, gentlemen, to show how anatomy may be studied, so as to render it most useful in a surgical point of view. It proves, when investigated in this manner, an inexhaustible mine of study, the more fruitful as it is the more explored.

This kind of knowledge has now been applied to every region of the body, and may be found accumulated in books; you have but to learn it; not, however, by the aid of memory alone, but by that of the understanding, analyzing and comparing, seeking out the reason why parts are arranged as we find them, the changes of form and texture that they undergo in disease, and the best methods by which to reach them in surgical operations. It is this sort of anatomical knowledge which conducts the knife of the surgeon through parts which it would be dangerous to wound, so that he may cut—aye, and safely too, within a hair's breadth as it were, of the patient's life, upon the vessel on the tying of which the patient's existence depends, or upon the tumour which it is necessary to remove.—Without such a knowledge no one could conscientiously practice as a surgeon; with it, who would hesitate to perform any operation that the necessity of the case should demand?

Medical anatomy consists in a similar application of the anatomy of

the organs, both healthy and diseased, to the causes, the symptoms, and the treatment of internal diseases. I would have you, gentlemen, be most fully convinced of this fact, than which there is no opinion of more value in medicine, that the most profound knowledge of the causes, the symptoms and the march of diseases, will not alone suffice to enable us to arrive at the diagnosis of diseases. We must understand the lesions which exist in the organs, and constitute the essence of the disease, the *punctum saliens* of the derangement in the functions of the body, before we can form a clear and satisfactory idea of what we have to combat. Your attention must not be fixed upon the outposts, or the irruptive sallies from the garrison, but to the very centre of the citadel itself, in order, in the speediest and safest manner to quench the cause of excitement that has thrown the whole into disorder.

We have previously had occasion to observe, that the study of organic lesions, or diseases, commences at the point of departure of the organs from the state of health. The various appearances which the healthy organs present, is therefore the first study necessary to the medical pathologist. It is owing in a great measure to the neglect of this, that so many errors have crept into our pathology, and that this science has not given a more fixed foundation to practical medicine—so many inflammations, chronic and acute, have been seen, which have now been proved to be moribund congestions or cadaverous alterations.

In the cardiac region, we should study in reference to the practice of medicine, the volume of the heart in its healthy state—the many varieties which it presents in its size, its capacity, and the thickness of its walls—its position in regard to the sternum, and the costal cartilages against which it beats—its relation with the lungs which it is so necessary to understand in auscultation, especially the left, that is compressed by it when the heart is distended with blood, with the diaphragm upon which it rests, and is sometimes so depressed in enlargement of the heart, as to give an erroneous belief in the existence of an aneurism of the abdominal aorta. The texture of the heart should also form an especial object of study. It is essentially muscular, and like all the other muscles, is subject to rheumatism and gout, hypertrophia and atrophia. Like all the other muscles, it is subject to a rupture of its fibres; hence the perforations which are so frequently the cause of instantaneous death. It contains cellular tissue,

and is therefore liable to tubercles, cancer and inflammation. The external serous membrane is also liable to inflammation, giving rise to dropsy of the pericardium, or to false membranes, which are sometimes stretched into bands, and impede the movements of the heart. The valves, which consist of fibrous matter, contained between a doubling of the internal lining membrane, are susceptible, from being continually acted on by the waves of blood, of being thickened, and converted into cartilage, or even into bone. Thus altered in structure, they present obstacles to the circulation, and give rise to dyspnea, asthma, or angina pectoris, according to the circumstances of the case. The valves may exhibit ulcerations or vegetation, and indeed every mode of alteration which succeeds to long continued irritation.

It is in this way that anatomy may and ought to be studied, and for which we have the example of Cruviellier, and the best names in medicine and surgery, both at home and abroad, to teach that for which alone it is studied, a knowledge of the means for alleviating the miseries of the human race. It becomes in this way a more pleasing and rational pursuit; the very uses we are taught of the organs, and a knowledge of the diseases to which they are liable, serve each as a memento to aid us in remembering their structure and position. It is painful for us to make the effort, and almost impossible for us to succeed for any length of time in recollecting any abstract fact, for which we see no useful and rational application.

Morbid anatomy now holds a high rank among the medical sciences; and if you aspire at excellence in the profession of either medicine or surgery, you must cultivate it assiduously and well. The first step to its attainment, as we have before observed, is the study of physiological or healthy anatomy. If you doubt the superior excellence of this, over all other means of exploring disease, compare, as has been observed by a judicious writer, the works on medicine published fifty years ago, with those of the present day, written by men versed in the pathological changes of the organs, and in all the symptoms to which they give rise. In the former, you will find much mental acumen and practical tact, but all their conclusions are based on vagueness and hypotheses. They have built upon the sand—and their theoretic fabrics with which the annals of our science are encumbered, have fallen to the ground. They have viewed the body

as a mass, as it were, acted on by disease ; and not as being composed of a multitude of organs, endowed with separate functions and peculiar sympathies, harmoniously arranged, like so many individuals in a community, whose best interests only can be maintained by the mutual assistance of each other. The best writers of the present day, versed in the anatomy of health and disease, have built upon a firmer basis, for they have laid the foundation of their doctrines, upon the changes which occur in the structure and functions of the organs. Their writings are less tinged with the brilliant and seductive hues of fancy, but they convey to our minds accurate and rational images, readily applicable to the cure of diseases, and their mode of investigation must continue to merit the confidence of the physician while man remains constructed of the same organs, lives on the same elements, is liable to the same diseases, and while truth and nature continue to be esteemed.

There is yet another important object in the study of anatomy—its application to medical jurisprudence. Legal medicine is founded in almost all cases upon a knowledge of anatomy ; as its object is generally to determine of what disease the individual, who is submitted to examination, has died. In Germany, anatomy has been applied to this subject as a particular department of the science, and no advocate there is considered accomplished in his vocation, who has not made this branch, *anatomia forensis*, a particular subject of his study. It is, from its importance, deserving of more attention, than it has heretofore received from the medical students of this country. The annals of our science furnish many instances, where excellence in this department, has enabled the physician to save from the scaffold, individuals unjustly accused of crime. On this ground, then, anatomy forms another object of study, deserving of your highest attention.

This, gentlemen, which I have described, this *beau ideal* of an anatomical course, is the kind which I shall endeavour to teach you, as far as my humble qualifications may allow ; this is the course which will most redound to your benefit, and, as I sincerely believe, to your gratification. Industry and zeal, however, you must bring to the task ; and it shall be my desire to surround you with every convenience, which the character of the pursuit will allow.

Gentlemen,—I am aware that I have occupied your time long, but I

trust that the common feeling which actuates us all, in the struggle after competence and honour, through the means of our noble and beneficent profession, will shield me against the reproaches of your patience. You have all rich prospects in your view, are in the hey day of your youth—you have health, and perhaps a long life before you,—strive, then, with a noble aim and untiring efforts, to study deeply, and extend the usefulness of your profession, and to elevate the medical science of our common country in the estimation of other nations. Untiring, unflinching, and honest perseverance in the profession of your choice, with a determination not to be defeated in the pursuit, should the golden fruit of the Hesperides be thrown as temptations in the way, and you must unflinchingly win to yourselves the reward of competence and the esteem of the good and wise—be ranked with the first members of the society in which you dwell, as benefactors to the public, the sole earthly hope of the sick man in the hour of sickness and despair, and his confidant and friend in the period of conviviality and mirth.

When viewed in such an elevated position, how must that physician feel, who sees sink into the “valley of the shadow of death” the parent of a flock of mourning children, with prospects blighted by their bereavement, when he only believes, that had he more assiduously studied his profession, he might have been the means of restoring him to the circle that his presence would have rendered so happy. Contrast with his, the sensations of another, who feels that he has successfully interposed his scientific skill between death and his victim, and is repaid—the only way he ever can be fully repaid for all his watching and anxiety, by the tear of gratitude and an approving conscience. This, gentlemen, is an object of such intrinsic worth, that there could be no richer inducement to prompt you to exertion. Address yourselves to the study of your profession with ardour, and it is yours. And as you advance toward the evening of life, and time has decked you with his coat of silver gray, you will find no small consolation, in the consciousness that you have in a small measure, followed the example of one “who went about the world healing the sick, relieving the afflicted, and doing good unto his fellow men.”